METHOD FOR FULFILLING REQUESTS OF A WEB BROWSER

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FIELD OF THE INVENTION

This invention is related to computers and computer systems and particularly to a method and system for use of the World Wide Web and other sources of information and for utilization of existing equipment advantageously for web server data access over networks and the Internet.

RELATED APPLICATIONS

This application entitled "A Method for Fulfilling Requests of a Web Browser" is related to other United States of America Patent applications filed concurrently herewith, and specifically to the applications entitled "Computer Network for WWW Server Data Access over Internet", U.S. Ser. No. 08/474,571, filed Jun. 7, 1995; and "A Service Agent for Fulfilling requests of a Web Browser", U.S. Ser. No. 08/474, 576, filed Jun. 7, 1995; and "A Sub-Agent Service Agent for Fulfilling Requests of a Web Browser", U.S. Ser. No. 08/474,575, filed Jun. 7, 1995; and "A Web Browser System", U.S. Ser. No. 08/479,481, filed Jun. 7, 1995; and "A Method for Distributed Task Fulfillment of Web Browser Requests", U.S. Ser. No. 08/474,572, filed Jun. 7, 1995.

These applications have a common assignee, International Business Machines Corporation, Armonk, N.Y.

GLOSSARY OF TERMS

While dictionary meanings are also implied by certain terms used here, the following glossary of some terms may be useful.

World Wide Web (WWW)

The Internet's application that lets people seeking information on the Internet switch from server to server and database to database by clinking on highlighted words or phrases of interest. An Internet WWW server supports clients and provides information.

Home page

A multi-media table of contents that guides a web user to stored information about an organization on the Internet.

Gopher

A menu-based search scheme, which as developed at the University of Minnesota, lets a user reach a destination on the Internet by selecting items from a series of text menus.

Access Agent

A logical component that provides support for different access protocols and data streams—Frame Relay, HDLC (High Data Link Control) CBO (Continuous bit Operations, ATM (Asynchronous Transfer Mode), or TCP/IP.

Application Processing Agent

A data processing agent running in a server data processing system which performs tasks based on received requests from a client in a distributed environment. In our preferred embodiment, our application processing agent for database retrieval is our DIS server, a data interpretation system

server and database gateway which is coupled to our web server HTTPD via a network. In our preferred embodiment an application processing agent employs executable object programs as command file objects, which in the preferred embodiment are capsule objects.

Client

A client is a computer serviced by the server which provides commands to the server.

Data Interpretation System (DIS).

IBM's object oriented decision support tool.

Capsule

A DIS capsule is a program created by a DIS programmer and executed in the DIS environment. A DIS capsule is a preferred example of a capsule object. A capsule object is a specialized form of a command file (which is a list of commands to be executed, as in an EXEC or *.BAT batch file. The capsule object is created with an object environment, as is supplied by IBM's DIS. Other object environments are IBM's SOM and DSOM, and Microsoft's COM environment.

Internet

The connection system that links computers worldwide in a web.

Server

A machine which supports one or more clients and is part of the web. Any computer that performs a task at the command of another computer is a server.

Slip or PPP connection.

Serial-line Internet protocol and point-to-point protocol, respectively, for providing a full access connection for a computer to the Internet.

TCP/IP

Transmission control protocol/Internet protocol. A packet switching scheme the Internet uses to chop, route, and reconstruct the data it handles, from e-mail to video.

InterNetwork Routing (INR)

The link between systems which routes data from one physical unit to another according to the applicable protocol. The protocol will employ a URL address for Internet locations.

URL

Universal resource locater, a Web document version of an e-mail address. URLs are very cumbersome if they belong to documents buried deep within others. They can be accessed with a Hypelink.

Web browser

An program running on a computer that acts as an Internet tour guide, complete with pictorial desktops, directories and search tools used when a user "surfs" the Internet. In this application the Web browser is a client service which communicates with the World Wide Web.

HTTPD

An IBM OS/2 Web Server or other server having Hypertext Markup Language and Common Gateway Interface. In our preferred embodiment, the HTTPD incorporates our control program agent and is supported by an access agent which provides the hardware connections to machines on the intranet and access to the Internet, such as TCP/IP couplings.

HTTP Hypertext transfer protocol

Hypertext transfer protocol. At the beginning of a URL "http:" indicates the file contains hypedinks.

Hyperlink

A network address embedded in a word, phrase, icon or picture that is activated when you select the highlighted tidbit. Information about that item is currently retrieved to the client supporting a Web browser.